

# **APPENDIX K**

## **CONNECTICUT RIVER TO MILLERS RIVER**

### **WATERSHED**

(HUC8: 01080202)

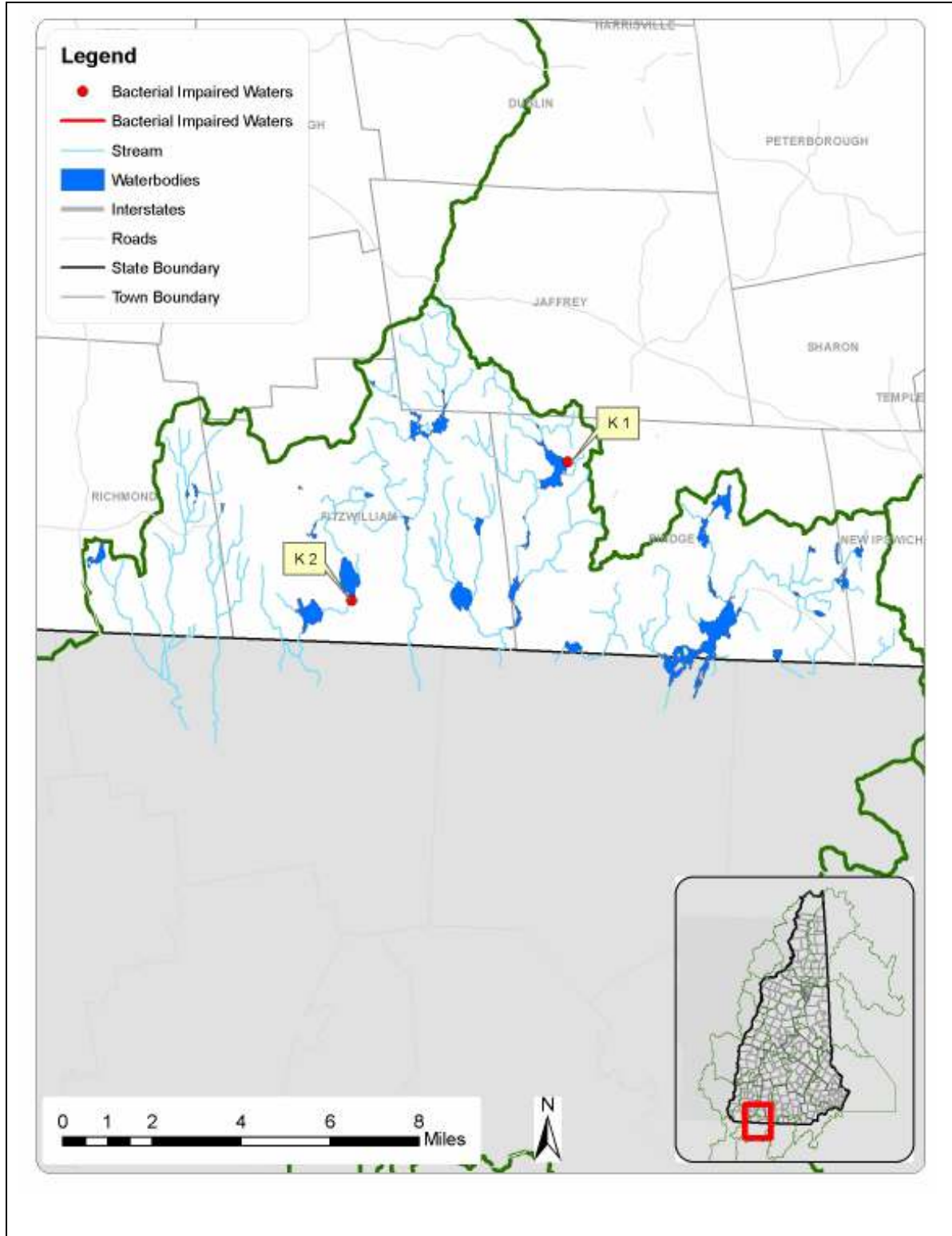
#### **I. WATERSHED DESCRIPTION AND MAPS**

This section of the Connecticut River Watershed straddles the borders of New Hampshire, Massachusetts and Vermont. The entire watershed covers an area of approximately 389 square miles, with approximately 79.5 square miles located in the southwest corner of New Hampshire. There are 6 New Hampshire towns located at least partially within the watershed which stretches from Goshen, NH to Gill, MA. As shown in Figure 1, the primary watercourse in the region is the Ashuelot River which flows southwest through Keene, NH before bending west to join the Connecticut River on the Vermont border in Hinsdale. Franconia Mountain Range is located in this watershed along with many independent mountains. Aquatic features in this watershed are Silver Lake, Surry Mountain Lake, and Ashuelot Pond.

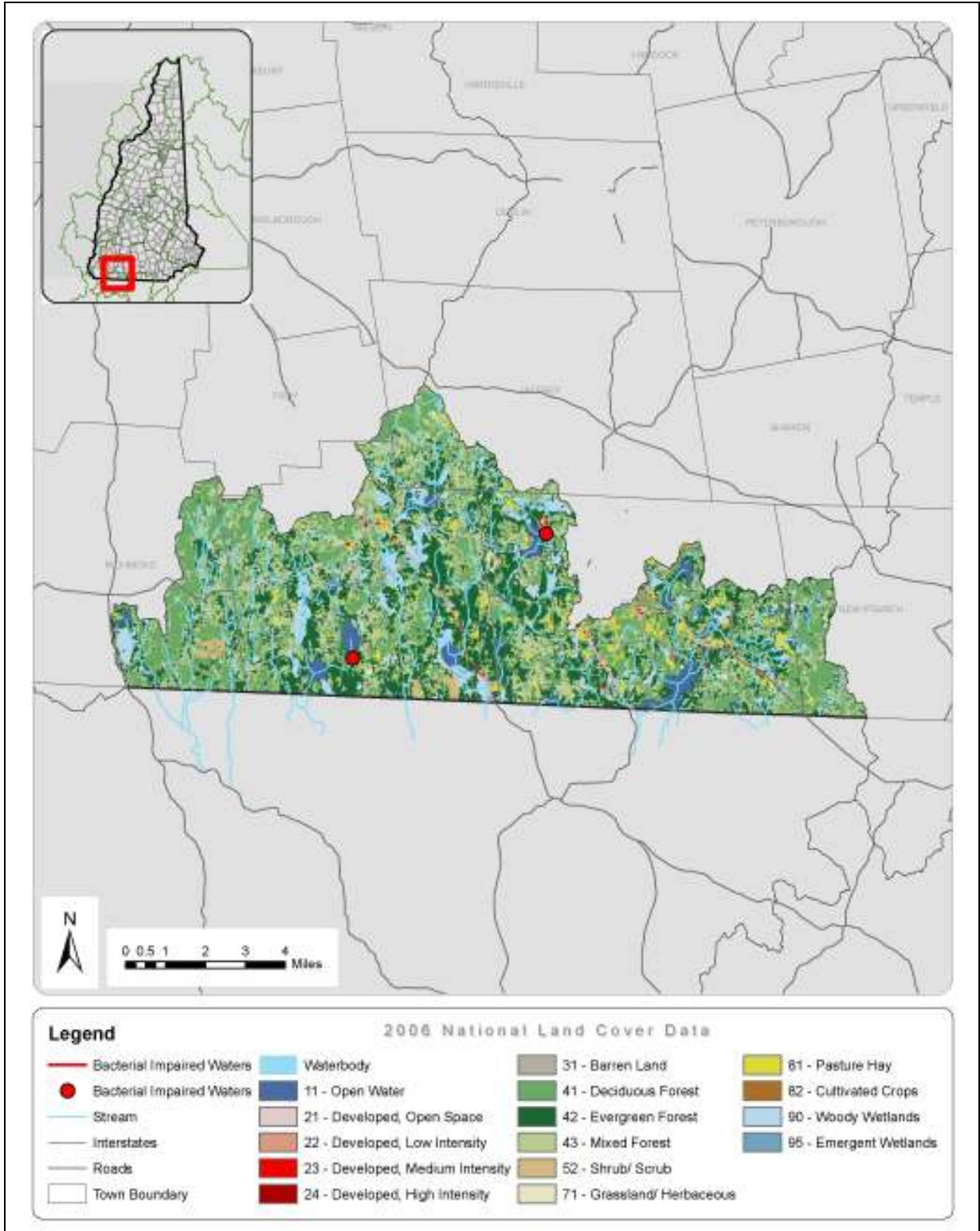
The watershed consists of 83% forested land cover. A minor portion of the woodland is conserved and protected as part of Monadnock State Park, Pisgah State Forest and numerous smaller parks and reserves. Developed and agricultural land equally share 8% of land cover identified in Figure 2. Developed land is found in the urban area of Keene, NH and along major roadways. Development is also prevalent on the shores of waterbodies in the outskirts of the urban area.

Based on the 2010 303(d) list, two assessment unit (AUs) in this watershed are listed as being impaired for bacteria. The location of the bacteria impaired surface water AUs are shown on Figure 1 as red circles. Item K1 and K2 presents the percent reduction needed to meet each water quality criterion (and TMDL), based on the highest recorded bacteria measurement that exceeds the criterion for the AU, as well as the bacteria data collected in the impaired AUID that was used to list the AU as impaired on the 2010 303(d) list.

FIGURE 1:



**FIGURE 2:**



## II. WATER QUALITY DATA TABLES

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## K1: Pearly Lake – Pearly Lake Beach

**AUID** NHLAK802020103-08-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100Ml

Geometric mean: 47 CTS/100Ml

**Percent reduction to meet TMDL:**

Single sample: 70%

Geometric mean: 46%

**Data:** 200 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	7/30/2009	13.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/3/2009	36.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/5/2009	91.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/7/2009	68.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/24/2009	170.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/26/2009	290.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINLF	8/28/2009	46.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	7/30/2009	100.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/3/2009	240.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/5/2009	130.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/7/2009	70.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/24/2009	130.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/26/2009	260.0
PEARLY LAKE – PEARLY LAKE BEACH	BCHPLBRINRT	8/28/2009	26.0

### Geometric mean *E. coli* results (CTS/100ML)

Station Name	Date	Result
PEARLY LAKE – PEARLY LAKE BEACH	8/28/2009	86.2

Shaded cells indicate exceedance of water quality criteria

## K2: Laurel Lake – Town Beach

**AUID** NHLAK8020202-02-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100Ml

Geometric mean: 47 CTS/100Ml

**Percent reduction to meet TMDL:**

Single sample: 74%

Geometric mean: in compliance

**Data:** 1999-2009 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/22/1999	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/18/2000	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/19/2001	5.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/16/2001	13.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/18/2002	0.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/30/2002	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	6/25/2003	3.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/31/2003	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/20/2004	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/10/2004	6.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/12/2005	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/10/2005	64.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/30/2005	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/11/2006	14.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/27/2006	6.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/15/2006	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	6/28/2007	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/18/2007	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/7/2007	3.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	6/20/2008	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/16/2008	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/11/2008	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/1/2009	170.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/6/2009	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/29/2009	50.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	7/31/2009	4.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITLF	8/24/2009	29.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/22/1999	20.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/18/2000	0.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/19/2001	0.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/16/2001	10.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/18/2002	176.0

LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/30/2002	7.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	6/25/2003	6.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/31/2003	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/20/2004	6.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/10/2004	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/12/2005	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/10/2005	16.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/30/2005	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/11/2006	20.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/27/2006	4.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/15/2006	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	6/28/2007	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/18/2007	8.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/7/2007	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	6/20/2008	10.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/16/2008	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/11/2008	1.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/1/2009	110.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/6/2009	2.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/29/2009	340.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	7/31/2009	4.0
LAUREL LAKE – TOWN BEACH	BCHTWBFITRT	8/24/2009	20.0

Shaded cells indicate exceedance of water quality criteria

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
LAUREL LAKE – TOWN BEACH	8/16/2001	7.6
LAUREL LAKE – TOWN BEACH	8/30/2002	10.5
LAUREL LAKE – TOWN BEACH	7/31/2003	2.1
LAUREL LAKE – TOWN BEACH	8/10/2004	2.9
LAUREL LAKE – TOWN BEACH	8/30/2005	3.2
LAUREL LAKE – TOWN BEACH	8/15/2006	5.5
LAUREL LAKE – TOWN BEACH	8/7/2007	1.9
LAUREL LAKE – TOWN BEACH	8/11/2008	2.1
LAUREL LAKE – TOWN BEACH	8/24/2009	20.3